

REMARKS

Reconsideration of the above-identified Application is respectfully requested. Claims 1-6 and 8-28 are in the case. Claims 1, 6, 8, 9, 13, 16 and 22 have been amended.

Regarding the objection to Claim 8, this claim has been amended, and now depends from Claim 1. It is therefore respectfully submitted that the ground for this objection has been overcome. Wherefore reconsideration and withdrawal of this objection are respectfully requested.

Regarding the rejection of Claims 1, 11, 12, 16 and 18-21 under 35 U.S.C. § 102(e) as allegedly being anticipated by Aikawa et al., independent Claims 1 and 16 have been amended to overcome the rejection. Applicants have carefully considered the Examiner's Response to Arguments, including the assertion of entitlement to give claim limitations their broadest reasonable interpretation in light of the specification, and amended the claims with this assertion in mind. In this regard, Applicants respectfully point out that as amended the claims now make clear that the method is practiced in response to device power up or to device reset, as the case may be. After waiting for a first request signal from the host, the device responds to the first request signal with a first NAK, and initiates downloading a device program from the data source. It continues to download the device program for a predetermined time period based on the request signal. In response to a subsequent request signal from the host, if the device program is not completely downloaded, the device sends a subsequent NAK and continues to download the device program. However, if the device program is completely downloaded, the device responds to the subsequent request signal by executing the device program.

The patent to Aikawa merely refers generally, at Column 1, lines 20-23, to issuing a NAK signal to indicate that there is an error in the received data or the receiving unit is busy and cannot accept data until a later time, or a transmitting device cannot transmit data. At Column 2, lines 54-63, Aikawa points out that

sending NAKs causes congestion on the bus. Accordingly, his invention has as its purpose reducing such congestion.

Aikawa et al. are completely silent on sending NAKs in response to request signals after reset or power up to permit the downloading of a device program, or firmware, as set forth in Claims 1 and 16 as now amended, and then executing such program in response to a subsequent request signal, which is not surprising, since the objective of their technique is different from the objective of these claims, namely, to permit downloading a device program, or firmware, within architected time constraints.

The other art of record is even less relevant.

For all of the above reasons it is respectfully submitted that Claims 1 and 16 are allowable over Aikawa et al. and, indeed, all of the art of record, whether considered individually or in any combination. Claims 11 and 12 depend from Claim 1, and Claims 18-21 depend, either directly or indirectly, from Claim 16, and so they are allowable as well for the same reasons, as well as for the additional limitations found therein.

Wherefore reconsideration and withdrawal of this rejection are respectfully requested.

Regarding the rejection of Claims 2-5, 22, 24, 26 and 27 under 35 U.S.C. § 103(a) as allegedly being unpatentable over Aikawa et al. in view of Kitagawa et al., independent Claim 1 has been amended as discussed above to overcome the rejection of Claims 2-5, which depend, directly or indirectly, from Claim 1, while Claim 22 has been amended to overcome the rejection of Claim 22 and of Claims 24, 26 and 27, which depend, either directly or indirectly, from Claim 22.

With respect to Claims 22, 24, 26 and 27, independent Claims 22 sets forth a non-volatile memory having firmware stored therein, a microcontroller unit (MCU), and an instruction memory storing instructions for execution by the MCU upon reset, the execution of the instructions controlling the device to respond with a negative acknowledgement (NAK) in response to a request signal from a

host controller, to download the firmware for use by the MCU for a period of time after responding with the NAK, and to continue to respond with NAKs and to download the firmware until downloading of the firmware to the MCU has completed. Thus, a similar argument to that set forth above applies here as well. The patent to Aikawa et al. is silent on sending a NAK to download firmware for use by and MCU for a period of time, then continuing to respond with NAKs and to download the firmware, and then executing the firmware in response to a request signal thereafter.

The patent to Kitagawa et al. fails to cure the deficiencies of the patent to Aikawa et al., having been cited merely for a data source comprising non-volatile, EEPROM memory, and for initializing variables and determining whether firmware is valid. It is therefore respectfully submitted that for all of the above reasons Claims 2-5, 22, 24, 26 and 27 are all allowable over Aikawa et al., Kitagawa et al., and, indeed, all of the art of record, whether considered individually or in any combination.

Wherefore reconsideration and withdrawal of this rejection are respectfully requested.

Regarding the rejection of Claims 6, 8-10, 13-15 and 17 under 35 U.S.C. § 103(a) as allegedly being unpatentable over Aikawa et al. in view of Falik et al., independent Claims 1 and 16 have been amended as discussed above to overcome the rejection of Claims 6, 8-10 and 13-15 which depend, directly or indirectly, from Claim 1, with respect to Aikawa et al., for the reasons discussed above, while independent Claim 16 has been amended as discussed above to overcome the rejection of Claim 17, which depends from Claim 16, with respect to Aikawa et al., for the reasons discussed above. The patent to Falik et al. fails to cure the deficiencies of Aikawa et al. with respect to Claims 1 and 16, having been cited merely for a controller generating a pointer and a byte counter.

Therefore, it is respectfully submitted that for all of the above reasons Claims 1 and 16 are allowable. Claims 6, 8-10, 13-15 and 17 all depend, either

directly or indirectly, from either Claim 1 or 16 and so are allowable as well for the same reasons, as well as for the additional limitations found therein.

Wherefore reconsideration and withdrawal of this rejection are respectfully requested.

Regarding the rejection of Claims 23, 25 and 28 under 35 U.S.C. § 103(a) as allegedly being unpatentable over Aikawa et al. in view of Kitagawa et al. and Falik et al., Claim 22 has been amended to overcome this rejection. The reasons for the allowability of independent Claim 22 over Aikawa et al. and Kitagawa et al. are set forth above. The patent to Falik et al. fails to cure the deficiencies of Aikawa et al. and Kitagawa et al. for reasons similar to those set forth above.

Therefore, it is respectfully submitted that for all of the above reasons Claim 22 is allowable. Claims 23, 25 and 28 all depend, either directly or indirectly, from either Claim 22 and so are allowable as well for the same reasons, as well as for the additional limitations found therein.

Wherefore reconsideration and withdrawal of this rejection are respectfully requested.

It is respectfully submitted that the claims recite the patentably distinguishing features of the invention and that, taken together with the above remarks, the present application is now in proper form for allowance. Reconsideration of the application, as amended, and allowance of the claims are requested at an early date.

While it is believed that the instant amendment places the application in condition for allowance, should the Examiner have any further comments or suggestions, it is respectfully requested that the Examiner contact the undersigned in order to expeditiously resolve any outstanding issues.

To the extent necessary, the Applicants petition for an Extension of Time under 37 C.F.R. §1.136. Please charge any fees in connection with the filing of this paper, including extension of time fees to the Deposit Account No. 20-0668

of Texas Instruments Incorporated.

Respectfully submitted,

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